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## **Delivering Drinking Water in Idaho**

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Developing the Technical, Financial, and Managerial  
Capacity of Public Water Systems

Report to the Governor of the State of Idaho

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# Introduction

## The Capacity Development Challenge

“The future of Idaho’s citizens and communities depends on an adequate supply of safe, clean water. Idaho’s ability to deliver safe, clean water depends on maintaining and developing the technical, financial, and managerial capacity of public water systems,” says Lance Nielsen, Manager of Idaho’s Drinking Water Program.

Idahoans believe their water is clean and clear, and that it is abundant and free. While this is mostly true, there are challenges, and one of the greatest is this very belief that clean, clear water will always be abundant and free. Solving this and other challenges, from broken pumps to budget shortfalls and personnel losses, is the goal of the Capacity Development Program.

## This is a Sea Change; a New Way of Ensuring Safe Drinking Water

Capacity development is not a project, not even a large multi-faceted project. Nor is it a program that simply gives direction rather than interactive coordination. It is a strategy<sup>1</sup> for breaking down the barriers that public water systems encounter in maintaining or improving their ability to deliver safe drinking water. It is “a sea change in the way we do business; a complete change in the culture of ensuring the delivery of clean, safe drinking water,” says Chris Lavelle, Idaho’s Capacity Development Coordinator. Lavelle is building a network of organizations that serve the drinking water community, that can synchronize and focus efforts to most benefit public water systems. Working across many diverse interests in the drinking water community, he says he sometimes thinks of himself as “drinking water at large.”

## What is the Aim of Capacity Development?

Idaho’s capacity development effort works to ensure that our current capacity to deliver safe water is maintained and expanded to meet our future needs, from drinking fountains in schools to water supporting our industries.

Each of the 2,080 public water systems in Idaho works hard to deliver safe drinking water to its users. But the business has become more complex and it is especially difficult for very small systems to comply with all the regulations and overcome all the obstacles. Only 42 of the 2,080 systems serve more than 3,300 people each; the other 2,038 are very small. The Department of Environmental Quality’s (DEQ’s) drinking water program supports all public water systems, especially the 2,038 very small ones, in establishing a sound technical, financial, and managerial foundation capable of producing and delivering safe drinking water, both now and in the future.

## This Report: What We’ve Achieved So Far

This report<sup>2</sup> shows how public water systems, with the support of DEQ and others, are maintaining and improving their ability to deliver safe water to Idahoans. Large, long-term changes at the state level empower people at the local level to develop the capacity of individual public water systems. You will read about successes of individual water systems in overcoming specific problems, and about changes at state and regional levels that support them and will support them into the future.

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<sup>1</sup> The Safe Drinking Water Act Amendments of 1996 required the state to “develop and implement a strategy to assist public water systems in acquiring and maintaining technical, financial, and managerial capacity.” [P.L. 104-182, 1420(c) Sec. 119]

<sup>2</sup> Capacity development regulations require this report to be made to the Governor “ . . . on the efficacy of the strategy and progress made . . . ” This report must also be made available to the public. [P.L. 104-182, 1420(c)(3) Sec. 119]

# The Capacity Development Strategy

## The Citizens Advisory Committee

A Citizens Advisory Committee was formed to guide the development of Idaho's capacity development strategy. The committee's findings and recommendations are contained in the *Report of Findings*.<sup>3</sup>

Using the *Report of Findings* as our primary guidance, DEQ developed a strategy.<sup>4</sup> It is a long-term strategy, and we are only in the initial phase of implementing it. Two elements of the strategy give a good view of progress in capacity development: identifying and prioritizing systems that most need attention, and implementing recommendations of the citizens advisory committee on how to best use the state's authority and resources.

## Identifying and Prioritizing Systems That Most Need Attention

We used a two-pronged approach to this task. First, we contracted with Idaho Rural Water Association (IRWA) to provide additional technical assistance to 80 very small systems. That program is discussed on page 7. Second, we developed an enhanced sanitary survey and associated database that we can use to quickly identify which systems need help, and what kind of help they need. The enhanced sanitary survey is discussed briefly below and in more detail starting on page 4.

## How to Best Use the State's Authority and Resources

### *The Eight Immediately Adopted Recommendations*

The Citizens Advisory Committee recommended sixteen program elements. We immediately adopted the eight that we have authority and ability to implement on our own. The other eight were left open, to be initiated either when opportunities arise, or after the first eight are fully implemented. The eight that were left open mostly deal with areas where DEQ does not have authority to make needed changes, such as the actions of local planning and zoning boards. Each of the immediately adopted recommendations is described below.

### *1: Enhanced Sanitary Surveys*

Of the first eight recommendations, our top priority was to develop an enhanced sanitary survey. This should solve two of the advisory committee's concerns: (1) we need better overall data gathering and management, and (2) we need useful data for identifying systems most in need of assistance with improving their technical, financial, and managerial capabilities. As we developed the enhanced sanitary survey we recognized several other potential benefits and incorporated them into the design. The enhanced sanitary survey, described in detail below, is now the keystone of our capacity development efforts.

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<sup>3</sup> *Report of Findings: On Improving the Technical, Financial and Managerial Capacity of Idaho's Public Water Systems*, Citizens Advisory Committee to the Idaho Department of Environmental Quality, incorporated in *A Strategy for Improving the Financial, Technical and Managerial Capacity of Idaho's Public Drinking Water Systems*, Idaho Department of Environmental Quality, Boise, Idaho, July, 2000.

<sup>4</sup> *A Strategy for Improving the Financial, Technical and Managerial Capacity of Idaho's Public Drinking Water Systems*, Idaho Department of Environmental Quality, Boise, Idaho, July, 2000.

## ***2: Technical, Financial, and Managerial Self-Assessment Tool***

We are developing a self-assessment tool, and will finish it when the enhanced sanitary survey is fully implemented. It will correlate directly with the new, enhanced sanitary survey form. For each question on the survey form, the self-assessment will have three parts: the rule, the rationale for the rule, and how to comply with the rule. If a system operator or manager works her way through the self-assessment book and worksheets, she will not have any complete surprises during a sanitary survey inspection, and will know what supporting paperwork and materials to have readily available. This should make sanitary survey inspections more efficient for both operators and inspectors.

When some operators have become very familiar with the self-assessment, we hope they will be available to consult with others who are just starting to use it. Such a consultation might consist of a contract operator hired by a system to walk them through the self-assessment, or it might be an operator giving a seminar at an American Water Works Association subsection meeting, or might take some other form. We will promote these consultations in discussions, newsletters, and training materials.

## ***3, 4, and 5: Business Planning Handbook, Financial Training, Management Planning; and 6: Statutes and Rules Handbook***

Four recommendations will be incorporated into this task.

We contracted with the Environmental Finance Center at Boise State University to produce a management handbook (the strategy called it a business planning handbook) and conduct six related training sessions, one in each DEQ region. The center also prepared a training videotape that can take the place of training sessions for those who can't attend. The first series of this training got mixed reviews. Because we plan to provide this valuable training over a long term, we will respond to those reviews and work with the contractor to continually improve the offering. This management handbook is further discussed on page 8.

The statutes and rules handbook will be developed in conjunction with the management handbook discussed above, as a second phase, after the initial management handbook is fully implemented. The information for the statutes and rules handbook is collected so its development can begin when the management handbook is done, or sooner if an opportunity arises.

## ***7: Pro-Active Distribution of Information***

This is a philosophy rather than a project or a task. The DEQ is constantly looking for ways to communicate more proactively and efficiently with public water systems and all other interested parties. While this is an area in which DEQ has done well in the past, there have been some notable recent efforts. One example was our early and ongoing dissemination of the potential arsenic rule, which helped at least one system decide to consolidate with another system before the first system found itself out of compliance with the final arsenic rule.

## ***8: Technical, Financial, and Managerial Training for DEQ Staff and Consultants***

The Environmental Finance Center provides training for DEQ staff and consultants on the issues of financial and managerial capacity. In 2002, the center provided training on enterprise fund accounting, financial reporting, and budgeting, as part of a training session on Idaho's new enhanced sanitary survey. This training focused on three important building blocks:

- ☐ financial information (understanding the information tied to individual financial transactions)
- ☐ reading financial reports
- ☐ understanding ratios and other indicators of financial performance.

The Service Providers Round Table is another excellent avenue for delivering training and education to staff and consultants. The Round Table and its education opportunities are discussed on page 13.

## **Enhanced Sanitary Surveys: The Key to the Future**

### **Why We Needed to Change**

As we began deciding how to direct our capacity development efforts we found that we didn't know enough about the water systems we were trying to serve. We wanted to know which were most in need of assistance and what assistance they needed—for instance, which deficiencies are most common? Our databases either didn't have this information or couldn't make it efficiently accessible.

We quickly realized we already have a vehicle for gathering information. The sanitary survey has long been at the center of our communication with our regulated community, so we chose to enhance it rather than create another layer of communication and related paperwork.

We already had staff in the field year-round conducting sanitary surveys. During a sanitary survey an inspector would look at a water system in its entirety. There were, however, three shortcomings if we wanted to use that information for capacity development: the sanitary surveys were not standardized—at least 20 different formats and forms were in use, they did not ask for substantial information about financial or managerial capacity, and the needed information was not always captured.

### **Changes We've Made**

We made changes to the sanitary survey system that resolved all three shortcomings at the same time.

#### ***Standardizing the Sanitary Survey***

The enhanced sanitary survey uses one standard form to gather all the information we need to conduct an effective capacity development program, as well as to continue properly assessing whether a water system is in compliance with all applicable regulations. We spent a year refining this survey form.

### ***Questions About Financial and Managerial Capacity***

We added questions on the sanitary survey form to find out about the financial and managerial capacity of the water system, such as, “Do you charge customers according to the amount of water they use?” and “Do you have a certification and training plan for operators, to make sure you always have certified operators?”

### ***Improving Information Capture and Access***

Previously, information gathered during a sanitary survey was kept primarily in the inspector’s handwritten files. Information in the report to the water system was typed up, but it was not put into any database—to get information about all the public water systems, a researcher would have to read hundreds or thousands of these reports and distill the information mentally, or perhaps create a new spreadsheet or database as he went.

We designed a database along with the enhanced sanitary survey. This database will take all the information gathered during the surveys, capture it in one place, and make it efficiently accessible for a myriad of uses. Drinking water personnel will be able to query this database and find out, for instance, “what percentage of all public water systems surveyed during the last three years had deficiencies related to sanitary seals?” Or they could ask a more open question, such as, “which deficiencies were most common during the last three years?”

This database is an intermediary database. It will feed directly into the Standard Drinking Water Information System (SDWIS) database that is required for reporting to the U.S. Environmental Protection Agency (EPA), and can support other databases in the same way. When a sanitary survey is finished the information will be automatically loaded into our database. Our database will then have all the necessary data about that water system, in the right format, to report all required information directly into SDWIS. When the entire system has been converted, and all water systems have undergone at least one enhanced sanitary survey, this reporting can be automated—our database will automatically report directly to SDWIS on a pre-established schedule.

## **How We’ve Implemented Enhanced Sanitary Surveys**

The enhanced sanitary survey and support for its related database is being rolled out in phases.

### ***The First Phase: Training Inspectors to Use the New Standard Form***

After the standardized enhanced sanitary survey form was completed we partnered with EPA, leveraging the resources of both, and conducted a comprehensive training session for everyone who performs sanitary surveys. This included staff from DEQ headquarters and regional offices, Idaho Department of Health and Welfare district offices, the U.S. Forest Service, non-governmental organizations, and private service providers. This training session lasted four and a half days and covered each question on the enhanced sanitary survey form, including information about the new financial and managerial questions. This training was conducted in March 2002. Since then, the Idaho enhanced sanitary survey form has been the only accepted format for use in the state.

## *The Second Phase: Using PDAs to Gather Data and Input it to the Database*



An inspector uses a PDA to gather sanitary survey data.

The second phase began in September, as this report went to press. Inspectors began using personal data assistants (PDAs) instead of paper forms for enhanced sanitary surveys. Some inspectors had been using the PDAs since March 2002. In September 2002, all inspectors received PDAs loaded with the enhanced sanitary survey form and will input data to a PDA as they conduct surveys. When they return to their offices they will download the data from the PDA to a desktop computer and the data will subsequently be transferred to the main database at the DEQ state office.



The inspector downloads data from her PDA to her desktop computer.

### **One Measure of Success of the Enhanced Sanitary Survey system**

Jamie Bourne of the EPA headquarters office says, “The Idaho Drinking Water Program has taken a leadership role in the development of the electronic sanitary survey, a critical component in each State’s efforts to protect public health by helping to ensure the delivery of safe water to the public. EPA’s Drinking Water Academy is very interested in working closely with IDEQ to further develop the electronic survey and encourage other States to adopt this cost effective and efficient approach for conducting surveys.”

## **The Future of Capacity Development**

### **Two Vital Resources**

Ultimately, the Drinking Water Program will have two vital resources:

1. The database that captures the information from enhanced sanitary surveys and can be queried for information about the greatest needs and opportunities for enhancing drinking water capacity.
2. An established network of relationships with highly responsive regional offices, other agencies, and service providers.

### **Using These Vital Resources: An Example Case**

With those two resources, the Capacity Development Coordinator can quickly and efficiently dispatch the right kind of assistance to the right place at the right time. Here’s an example of how this might happen:

1. A database report might indicate that the most common problem is lack of sanitary seals on wellheads.



2. With that information, the coordinator could arrange for one or more of the service providers to determine what information about sanitary sealing is needed by the water system operators and managers identified in the report.
3. The coordinator could then arrange for the same, or another, service provider to develop a brochure with that information and mail it to all the systems identified in the report.
4. The initial report (from step 1) could be broken down into smaller individual reports, one for each regional and district office. This report would list the public water systems in each area that have known problems with sanitary sealing.
5. The coordinator could arrange for a service provider to develop and deliver a training session on sanitary seals, including the information needs identified in step 2. This training could be in two parts: one for water system operators and managers, and one for staff and consultants.
6. After training, field personnel could arrange to visit the systems with sanitary seal concerns as soon as possible, and advise the Coordinator of their planned visits.
7. If the coordinator determined that too few of the identified systems were going to be visited within a reasonable time, he could arrange for a service provider to make an additional round of visits, so all identified systems would be visited in a timely fashion.
8. Success of this effort could be determined by querying the database to get the answers to sanitary sealing questions from the next cycle of sanitary surveys (each public water system undergoes one sanitary survey every three to five years).

## **Improving Technical Capacity**

### **Specific Technical Assistance for Troubled Systems This Year**

In an effort to provide additional technical assistance to very small public water systems, DEQ contracted with the IRWA to provide these services.

#### *Description of the Program*

The Capacity Development Coordinator asked DEQ field staff in each regional office to nominate 10 to 15 public water systems they considered to be most in need of technical assistance. This created a list of 104 water systems considered most in need. These systems, for the most part, are in compliance with drinking water regulations but are considered troubled, and therefore in need of proper assessment and hands-on technical assistance to avoid becoming future non-compliers.

A contract was awarded to IRWA to provide technical assistance to 80 of the nominated systems. The agreement called for IRWA to do the following with each system:

- ☐ Visit and assess the condition of the system, garner input from DEQ and system staff, and develop a plan to provide the needed assistance.
- ☐ Provide the needed assistance (from operating the system to setting up files).
- ☐ Conduct a sanitary survey of the system after assistance has been rendered and provide a report to DEQ.
- ☐ Conduct a follow-up to the sanitary survey to correct any noted deficiencies.

In addition to providing technical assistance to systems, this program was designed to provide an alternative to having DEQ conduct all sanitary surveys.

### ***Evaluation of the Effort***

The contract has now expired and DEQ is evaluating the success of this method of delivering technical assistance to very small systems. We believe the concept proved sound, but success depends heavily upon the diligence and expertise of the contractor. Currently, DEQ plans to broaden its options for delivering this type of technical assistance, and will consider alternatives.

### **Consolidating Public Water Systems to Increase Technical Capacity**

Public water systems, especially very small ones, sometimes find that upgrading their infrastructures to keep up with increased demand or meet new regulations is beyond their reach. Often, the best solution is to consolidate with another, usually larger, public water system, however, many obstacles must be overcome before public water systems consolidate. Two stories of such consolidations and obstacles they overcame are profiled on the DEQ website, at [www2.state.id.us/deq/water/dw/CDA\\_CapeHorn.htm](http://www2.state.id.us/deq/water/dw/CDA_CapeHorn.htm)<sup>5</sup> and [www2.state.id.us/deq/water/dw/CDA\\_ConsolidatingSystems.htm](http://www2.state.id.us/deq/water/dw/CDA_ConsolidatingSystems.htm).

## **Improving Financial and Managerial Capacity**

### **A New Tool: the Management Handbook**

Since 1995, the Environmental Finance Center (EFC) has been developing and delivering tools for improving financial management to public water systems in the Northwest. Ratio8™ and CAPFinance™ are EFC software tools to assist with financial reporting and analysis and asset management, respectively. The EFC provides training and technical assistance in the use of these software tools.

The EFC also serves as a clearinghouse for ideas on how to improve technical, financial, and managerial capacity. Working with states across the country, the center often shares ideas on the best state approaches to improve technical, financial, and managerial needs. The *Drinking Water System Management Handbook*<sup>6</sup> is an excellent example. As other states prepare to write similar handbooks, they have looked to Idaho's *Drinking Water Management Handbook* as a model. According to Bill Jarocki, EFC Director, the state of Kansas Department of Health and Environment's drinking water program is interested in following Idaho's approach, and several other states have also expressed interest.

### **Including Management and Planning Considerations in Drinking Water Protection Plans**

When DEQ helps public water systems to develop drinking water protection plans, we encourage them to include contingency plans to cover emergencies such as temporary or permanent failure of their water source. Such plans should answer questions like "where would we get water while we investigate our source problem, and how would we pay for it?" and "will we be able to continue using our current source(s) indefinitely, and if not, what plans

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<sup>5</sup> Please see the note at the end of this report regarding online availability of the report and all articles referenced within the report.

<sup>6</sup> *Drinking Water System Management Handbook*, developed by the U.S. Environmental Protection Agency Region 10 Environmental Finance Center, Boise State University, for the Idaho Department of Environmental Quality, Boise, Idaho, 2002.

should we be making for switching to other sources or adding sources as it becomes necessary?”

The DEQ staff also encourages inclusion of long-term planning in drinking water protection plans. This might include developing a schedule that shows planned dates for activities such as filing an initial application for a grant to improve infrastructure (grant applications and approvals take time, so scheduling the beginning of the process is important), or developing a public information brochure and later mailing the brochure. These and other activities may be months or years in the future and may require advance preparation that is more likely to be accomplished if included in a long-term plan.

## **Operator Training and Certification**

### **Certification**

Certification for drinking water operators became mandatory in April 2000. Operators were given two years to comply with the new requirement. Previously, certification for drinking water operators was voluntary in Idaho and was mostly used as a career enhancement, mostly by employees who either were or wanted to be full-time employees of large public water systems. Very small public water systems usually have part-time operators, and none of them were voluntarily certified. This requirement brings a new era of professionalism to the public water system industry. It also brings a new challenge to public water systems, especially the very small ones.

Before certification became mandatory 158 systems had certified operators, leaving about 950 needing to get their operators certified. The deadline for all drinking water operators to be certified<sup>7</sup> was April 15, 2002. By that time more than 80% of drinking water systems in the state had at least one certified operator. That exceeded the goal set by DEQ, and approved by the EPA, of reaching at least 75% by the original deadline.

Some challenges that very small systems encountered when working to comply with the new operator certification requirement included:

- ☐ Lack of awareness. Although DEQ mailed several separate notices about the new certification requirement to each system’s owner or operator, some systems were still unaware of the new requirement. One reason for this was the turnover of operators and board members in very small systems such as homeowners’ associations, which prevented some notices from being directed to the person most able and willing to respond.
- ☐ No operator candidates. Many very small systems, especially systems owned and operated by homeowners’ associations, could not find anyone in their membership who was willing to become certified.
- ☐ Time commitment. To keep their certificates valid, operators must complete one day each year of continuing education. Many part-time volunteer operators find it difficult to meet this requirement.
- ☐ Cost of contract operators. For systems that didn’t have an interested operator candidate, hiring a certified contract operator was often found to be too expensive for the number of users (often homeowners) who would have to share the cost.
- ☐ Overall cost of meeting new drinking water regulations. Although costs of certification alone are minimal, at \$55 for initial application and exam or annual recertification, and

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<sup>7</sup> This requirement applies to operators of all surface water systems and all community and nontransient, noncommunity public water systems.

\$30 to \$55 for annual training, some very small systems found it difficult to cover these costs in addition to the costs of complying with all the other new drinking water regulations.

In Idaho the day-to-day business of processing applications, administering exams, and awarding and tracking certifications is performed under contract by the Idaho Water and Wastewater Operator Certifications Board.

## **Certification Training**



Opportunities to earn continuing education units (CEUs) required to obtain and maintain certification are offered by Brown Environmental, Inc. under contract with the state of Idaho. Brown Environmental offers 64 days of water (and wastewater) training each year in various locations in Idaho.

Additional training opportunities are provided by several other trainers and professional organizations in various locations around the state. Most of those trainers and organizations have links from the certification and training website discussed below.

At DEQ's state office, staff members often conduct or arrange training sessions related to drinking water protection. In many cases attendees can earn CEUs that meet operator certification requirements. For instance, all training sessions arranged by DEQ's Source Water Assessment program are designed and approved for operator certification CEUs.

## **Training and Certification Information Online**

The website at [www.idahocertificationtraining.com](http://www.idahocertificationtraining.com) is hosted jointly by Brown Environmental, Inc., the Idaho Water and Wastewater Operator Certifications Board, and DEQ. This website provides information about operator training and certification, with links to training information, certification information. There are also links to other drinking water-related entities, some of which offer additional training opportunities, both in-state and out-of-state, and distance learning options.

## **Education and Outreach**

Education and outreach help create awareness of capacity development's "change in the way we do business." A comment commonly heard during outreach visits is, "This has been good to get us thinking about these things . . ." such as planning for breakdowns or other emergencies, planning for regular equipment maintenance, or determining the financial health of the system.

The capacity development program has encouraged and supported education and outreach activities, ranging from helping water operators or board members when they come in to regional offices (as described below) to sending interns out to visit water systems (as described on page 12 and 13).

Staff members from DEQ regional offices often provide one-on-one training for writing consumer confidence reports and drinking water protection plans. In the Coeur d'Alene Regional Office, when water system operators or board members called to ask about annual consumer confidence reports, they were invited in to the office. In the office a staff member would help the water system operator or board member write the report and then give them the document on a disk to take with them. The next year many of those systems used the report on the disk as a template and wrote the new report without further assistance.

Working together on drinking water protection plans creates an ideal opportunity for drinking water program staff to discuss public education and outreach with water systems. They remind the systems that public education is a vital component of a good drinking water protection plan. Public education might be in the form of the water system sponsoring community recycling days, classroom presentations in local schools, or outreach visits to gas stations, agricultural businesses, and others with the potential to have big impacts on drinking water.

## **Integrating Capacity Development with Existing Programs**

### **Source Water Assessments**

The state of Idaho has completed source water assessments for 67% of its 2,080 public water systems, but more importantly has completed the delineations for about 96% of them. The delineations are the bulk of the work in a source water assessment. With source water assessments nearing completion well ahead of the 2003 deadline, Idaho is moving into the next phase of drinking water protection, which is drinking water protection plans.

### **Drinking Water Protection Plans**

Although it is voluntary in Idaho, DEQ strongly supports public water systems in developing drinking water protection plans. One completed plan developed by an Idaho public water system is considered so complete and thorough that the EPA has asked to use it as a national model.

Because it is voluntary, DEQ strives to educate systems on the value of drinking water protection plans. It's important for systems to know that having a drinking water protection plan in place is necessary when applying for some grants and loans. Drinking water protection plans are especially valuable for encouraging local governments to consider drinking water issues as they make their planning and zoning decisions, and other decisions that impact and are impacted by drinking water concerns. For example, a public water system that has an established drinking water protection plan might convince the planning and zoning commission to consider the plan's ramifications when siting new industry or drilling new wells.

# Cooperation Among Different Drinking Water Entities

## Public Water Systems

Consolidating very small systems into one larger system allows economies of scale that very small systems cannot achieve on their own. Fostering the cooperation that is vital to such consolidations is an important part of improving drinking water capacity. Two stories of consolidations, and their challenges, are profiled in articles on the DEQ website. The first, “Safer Drinking Water for Homes on a Rugged Idaho Lake Shore,” describes the difficulties that had to be overcome to consolidate some very small drinking water systems into a bigger system with better capacity: [www2.state.id.us/deq/water/dw/CDA\\_CapeHorn.htm](http://www2.state.id.us/deq/water/dw/CDA_CapeHorn.htm). The second, “Consolidating Water Systems in a Close-Knit Community,” emphasizes how important cooperation is for consolidating water systems: [www2.state.id.us/deq/water/dw/CDA\\_ConsolidatingSystems.htm](http://www2.state.id.us/deq/water/dw/CDA_ConsolidatingSystems.htm).

## State Programs

### *DEQ and Idaho Water Research and Resources Institute (IWRRI)*

The DEQ Source Water Assessment program staff has found information from the Idaho Water Research and Resources Institute (IWRRI) very helpful. Detailed geomapping by IWRRI has identified potential aquifers. This geomapping has also provided important data about wells used by some public water systems. These systems can't gather this type of data themselves because the required expertise and equipment is too specialized and expensive for a single water system to own and operate.

The IWRRI data is also helpful in identifying capacity losses. For instance, the Source Water Assessment program has received information from IWRRI about water levels that are dropping in several Idaho cities' source water wells. With this information they can work with other agencies and the affected public water systems to plan ahead and avoid water shortages in those cities.

### *One Cooperative Effort: Putting Interns in the Field*

This year one intern in each of the six regional offices spent the summer visiting water system operators, giving them a direct conduit for input to DEQ, and sharing information with them from DEQ and other sources.

This is the second year DEQ's Pollution Prevention program has been awarded a grant to fund interns that visit facilities in one sector of the business community. During these onsite visits the interns provide information about pollution prevention and resource conservation.



An intern visiting a water system talks with the operator about the facility's operations.

The Capacity Development Coordinator noticed the overlap between information relating to pollution prevention and information relating to drinking water capacity. Seeing a great opportunity, the Capacity Development Coordinator teamed with the Pollution Prevention Coordinator and arranged for the interns to visit public water systems this year. Each program committed to provide a portion of the funding and they collaborated on an information packet and a questionnaire. At the invitation of DEQ, the Idaho Department of Water Resources (IDWR) participated also, and the interns made some site visits on IDWR's behalf to educate businesses about injection wells.

The interns were generally recognized as a friendly face of DEQ and were able to spend time talking about whatever concerns operators wanted to discuss. In addition, the interns gathered information about the water systems such as whether they are metering and pricing accordingly and whether they have methods for preventing pollution and conserving water. At the end of each visit the intern would ask if the operator had any additional issues or questions, and the intern would find answers for them. In the fall all this data will be compiled into a report for the Capacity Development program and the Idaho Department of Water Resources.

The interns visited more than 100 public water systems, facilitating communication between DEQ's Drinking Water and Pollution Prevention programs and water system operators. Intern Scott Owen says, "I approached the tasks for my appointment . . . as not only a disseminator of information to the public water system but also as a collector of information for the Pocatello Regional Office and the IDEQ in general."

Two things stood out in the responses gathered by the interns:

- ☐ Many systems are moving to implement metering, which will allow better management and encourage conservation.
- ☐ Most systems do some kind of outreach and would like assistance with that effort.

### **The Service Providers Round Table**

Although the original strategy called for immediate implementation of just eight of the advisory committee's recommendations in the initial phase of capacity development, we said we would implement any of the other eight if we saw an opportunity. The Service Providers Round Table (Round Table) was one of the eight that were originally deferred, but last fall seemed an opportune time for its inception. It has now been meeting for about a year. Regular participants are DEQ, the EFC at Boise State University, the IRWA, and the Rural Community Assistance Corporation (RCAC), with others invited to participate as their expertise is needed. Often, DEQ presents a problem and asks the Round Table to propose solutions.

This was very helpful for a small city that found itself suddenly without an operator. An unfortunate death forced a sudden replacement of the Public Works Director in Ririe, Idaho. When George Franck took on the job he needed to learn very quickly how to operate the drinking water system. The Round Table was asked to help, and George remembers "a flood of people" coming and calling to help, including Jim Phillips of the RCAC and Kevin McLeod of the IRWA. Kevin helped George learn how to manage the chlorination process at a critical time. The automatic pump that correctly doses the chlorine into the system had broken down and although George was able to rebuild the pump, he couldn't get the chlorine level stabilized after he got it back on line. It bounced between high spikes and extreme lows. George called Kevin McLeod, who "walked him through" what he needed to do over the phone, until Kevin could visit George on site. On site, Kevin taught George how the

chlorination system operates, how much time it takes to adjust to changes, and which mathematical formulas to use to figure the correct chlorination dose rates. George was relieved when the chlorination system finally stabilized. Jim Phillips helped George learn about sampling requirements and referred him to manuals that are used by most operators to learn about water system operations and maintenance. Those are just two examples of the help George received. He says “if you’ll reach a hand up for help, the list is endless—there’s always somebody there saying, ‘I’ll give you a hand.’”

In addition, the Round Table provides an excellent opportunity for delivering training and education to drinking water staff and service providers. Specialists can make one presentation that reaches many key players in the Idaho drinking water community. One upcoming meeting will feature a presentation on the intricacies of the new regulation limiting arsenic in drinking water.

Perhaps most importantly, the Round Table provides a discussion forum for its members, whose diversity is a strength when they openly discuss their different approaches and methods.

### **All Levels of Government**

Because DEQ regulates many drinking water sources that are surface water running through land owned by the Idaho Department of Lands, the two agencies sometimes work together. In one instance, they cooperated to get an unsafe drinking water system shut down. Then DEQ, in conjunction with the government of the nearby city of Athol, created a safe, convenient, affordable alternative. Other agencies were involved also when alternatives were investigated. Details are in an article titled “Farragut Spring Closed - Athol Water Filling Station Opened,” on the DEQ website at [www2.state.id.us/deq/water/dw/CDA\\_FarragutSpring.htm](http://www2.state.id.us/deq/water/dw/CDA_FarragutSpring.htm).

## **Cooperation With Non-Governmental Service Providers**

The organizations profiled below have been instrumental in various efforts to maintain and improve Idaho’s capacity to provide safe drinking water. All three are permanent members of the Service Providers Round Table.

### **Environmental Finance Center at Boise State University**

The EFC for EPA’s Region 10 is headquartered at Boise State University. The EFC’s primary aim is to improve the financial and managerial capabilities of environmental systems and utilities in Idaho, Oregon, Washington, and Alaska. With its own headquarters in Boise, DEQ has excellent access to the EFC and to the services this center at Boise State can extend to Idaho’s drinking water systems.

The EFC provides third-party review of the technical, financial, and managerial capacity of drinking water systems applying for funding from the Drinking Water State Revolving Fund, which is administered by DEQ. Such capacity reviews are required by the 1996 amendments to the Safe Drinking Water Act before this type of funding for system improvements can be approved.



## **Rural Community Assistance Corporation**

The RCAC is a nonprofit organization dedicated to assisting rural communities to achieve their goals and visions by providing them with training, technical assistance, and access to resources. Most RCAC services are available to communities with populations fewer than 50,000.

The RCAC provides five major categories of assistance to small municipal and nonprofit water systems. The categories of assistance are summarized as Technical Assistance, Managerial Assistance, Financial Assistance, Networks and Advocacy, and Publications and Training. Staff persons at RCAC are trained in one or more of these disciplines to provide appropriate assistance. In addition, RCAC has a loan fund that can provide financing on any of the projects in which they are involved.

## **Idaho Rural Water Association**

The IRWA mission is “to provide a network of technical assistance in an effort to improve viability of the rural water and wastewater systems in Idaho.”

The IRWA is formed of members who pay dues and is also regularly commissioned for special projects by federal agencies including the EPA. They provide information, assistance, and training to public water systems, and are often especially helpful to very small water systems in rural areas. Their Circuit Riders provide a presence in remote rural areas, and the IRWA also advocates strongly for their members including representing them to the legislature.

## **Evaluating Capacity Development Efforts**

The DEQ has not yet fully evaluated the measurable efforts, having barely completed initial efforts as this report goes to press. Although positive trends can be seen in compliance tracking, outreach, and planning, it is still too early in the Capacity Development strategy implementation for definitive measurements. The DEQ intends to evaluate Capacity Development efforts annually starting at the end of this year and plans to include that information in annual updates of this report.

## **Needs for the Future of Capacity Development**

- ☐ Continuing communication about how big the scope of capacity development really is.
- ☐ Continuing communication about the fact that highly interactive and cooperative efforts are very successful.
- ☐ Better means to match public water systems with appropriate funding sources.
- ☐ Better means for “cutting red tape” to acquire funding from loans and/or grants.
- ☐ Better means for “cutting red tape” that gets in the way of consolidating public water systems.
- ☐ A streamlined method for matching peer systems that can provide each other mutual assistance.
- ☐ Improved cooperation with contractors, ensuring proper expertise when delivering assistance to small public water systems.

## Availability of This Report

This report is primarily published online, at [www2.state.id.us/deq/water/dw/capacity\\_development.pdf](http://www2.state.id.us/deq/water/dw/capacity_development.pdf).<sup>a</sup> Articles referenced and linked within this report are primarily published at [www2.state.id.us/deq/water/water1.htm](http://www2.state.id.us/deq/water/water1.htm), under the heading "Drinking Water," and the subheading "Coeur d'Alene DEQ helps Idahoans enjoy safe drinking water."

We will also ask the entities named in this report to provide a link from their websites to this report. In addition, a few printed copies have been supplied to Governor Dirk Kempthorne and his office; each of the state, regional, and district offices of the DEQ and the Department of Health and Welfare; and service providers identified herein, including the IRWA, the EFC, and the RCAC. No additional printed copies are planned.

Publication of this report will be publicized with a news release and letters to interested parties.

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**a. IMPORTANT NOTE regarding online availability of this report and articles referenced within this report:** The DEQ website will move, on November 4, 2002, to [www.deq.state.id.us](http://www.deq.state.id.us), and all DEQ website URLs given in this report will change accordingly.

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Costs associated with this publication are available from the Department of Environmental Quality in accordance with Section 60-202, Idaho Code.